MCRSnakeMagInstructions5x5x06.doc

MCR Snake and Spin Rotator Power Supply Instructions 5/5/06

CHANGES in this document (compare with last document dated 2/17/06)
1. Clarification on changing setpoints or ramping p.s.'s included in this document.

Instructions:
1. For turning on the snakes or spin rotators use TAPE.

2. You can get to TAPE by bringing up StartUp. Then select **Start->RHIC PS Management->Quench Recovery**.

3. After you select Quench Recovery a box will pop up and you will select **Snakes and Rotators On**.

4. You can turn on all of the blue snakes and rotators at the same time by clicking on the arrow next to **Turn on blue snakes and rotators** and then clicking on the box that contains the words **Turn on blue snakes and rotators**. Then click on RUN at the bottom.

5. You can turn on all of the yellow snakes and rotators at the same time by clicking on the arrow next to **Turn on yellow snakes and rotators** and then clicking on the box that contains the words **Turn on yellow snakes and rotators**. Then click on RUN at the bottom.

6. To turn on an individual snake or spin rotator follow the same procedure as in step 6 or 7 but instead of clicking on the box that contains the words **Turn on yellow snakes and rotators** (or **Turn on blue snakes and rotators**) you would click on the box that contains the sitewide name of the power supply you are interested in and then click RUN at the bottom.

7. Follow the ramp rates on the ramping waveforms, included in this document, for the power supply you are ramping if you want to use a pet page.

8. If any snake quenches at 25A or above contact the cryo control room but they may not see a heat load until 20 minutes after the quench.
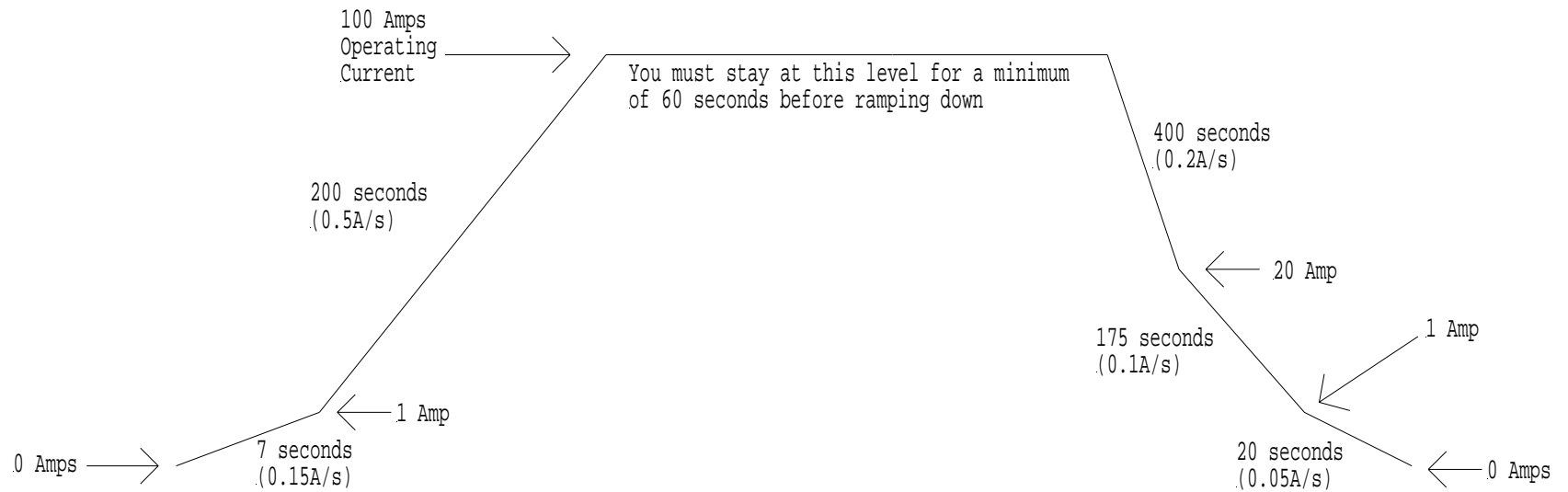
Clarification on How to Change Setpoints to RHIC Snakes and RHIC Rotator Power Supplies or How to Ramp RHIC Snakes and RHIC Rotator Power Supplies

1) One method of ramping these power supplies is to go to a pet page and follow the ramping waveforms on the next few pages. This should be considered as a last resort.

2) Sending a here to first from WFGMAN will bring the snakes to their operating current. When you ramp to store the rotators will ramp.

3) To send setpoints to individual snakes or rotators you can use psall by going under the HELIX tab. There is no need to get the ramp rates correct, psall will take care of that, just enter your setpoint.

4) If you want to ramp ONLY all of the snakes to zero current you can also use this sequence in the sequencer->>::RHIC::Ramp::Snake::SnakesToZero sequence

5) If you want to make permanent changes to the setpoints you can also use the ramp editor. Don Bruno is not familiar with using this so if you need help using the ramp editor you should contact Al Marusic or someone who is familiar with it.

This Ramp Applies to ONLY:

bo3-snk7-1.4-ps
yi3-snk7-1.4-ps
bi9-snk7-1.4-ps
yo9-snk7-1.4-ps

Maximum Current = 120 Amps
Adjustment Rate = 0.5A/s at 100A (+ 20Amps)
Adjustment Rate = 0.25A/s at 100A (- 20Amps)

100 Amps
Operating
Current

You must stay at this level for a minimum
of 60 seconds before ramping down

400 seconds
(0.2A/s)

200 seconds
(0.5A/s)

20 Amp

175 seconds
(0.1A/s)

1 Amp

1 Amp

7 seconds
(0.15A/s)

0 Amps

20 seconds
(0.05A/s)

0 Amps

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This Ramp Applies to ONLY:

bo3-snk7-2.3-ps
yi3-snk7-2.3-ps
yo9-snk7-2.3-ps

Maximum Current = 336 Amps
Adjustment Rate = 0.25A/s at 326A (+10Amps, -30Amps)

326 Amps
Operating
Current

104 seconds
(0.25A/s)

You must stay at this level for a minimum
of 60 seconds before ramping down

384 seconds
(0.37A/s)

184 Amps

600 seconds
(0.5A/s)

300 Amps

756 seconds
(0.22A/s)

20 Amp

1 Amp

1 Amp

175 seconds
(0.1A/s)

0 Amps

7 seconds
(0.15A/s)

0 Amps

20 seconds
(0.05A/s)
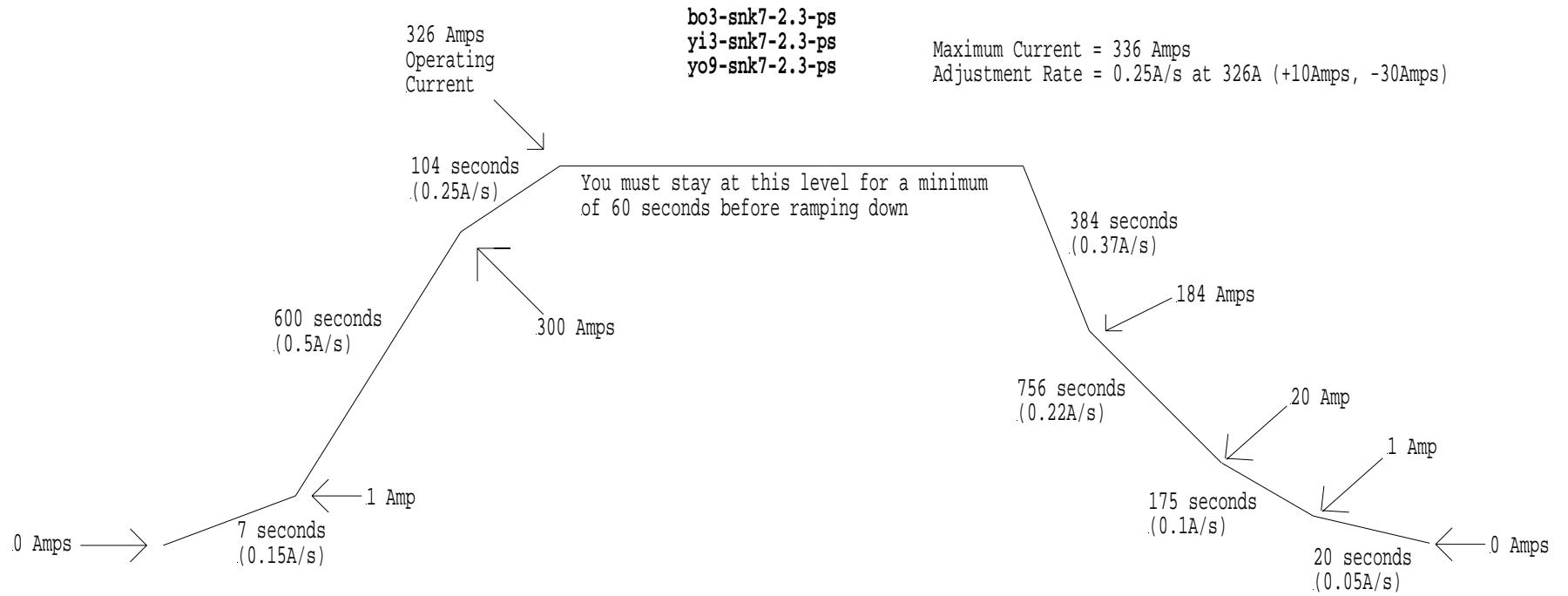
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This Ramp Applies to ONLY:

bi9-snk7-2.3-ps

326 Amps
Operating
Current

Maximum Current = 336 Amps
Adjustment Rate = 0.25A/s at 326A (+10Amps, -30Amps)

504 seconds
(0.25A/s)

You must stay at this level for a minimum
of 60 seconds before ramping down

384 seconds
(0.37A/s)

184 Amps

400 seconds
(0.5A/s)

200 Amps

756 seconds
(0.22A/s)

20 Amp

1 Amp

1 Amp

175 seconds
(0.1A/s)

0 Amps

0 Amps

7 seconds
(0.15A/s)

20 seconds
(0.05A/s)
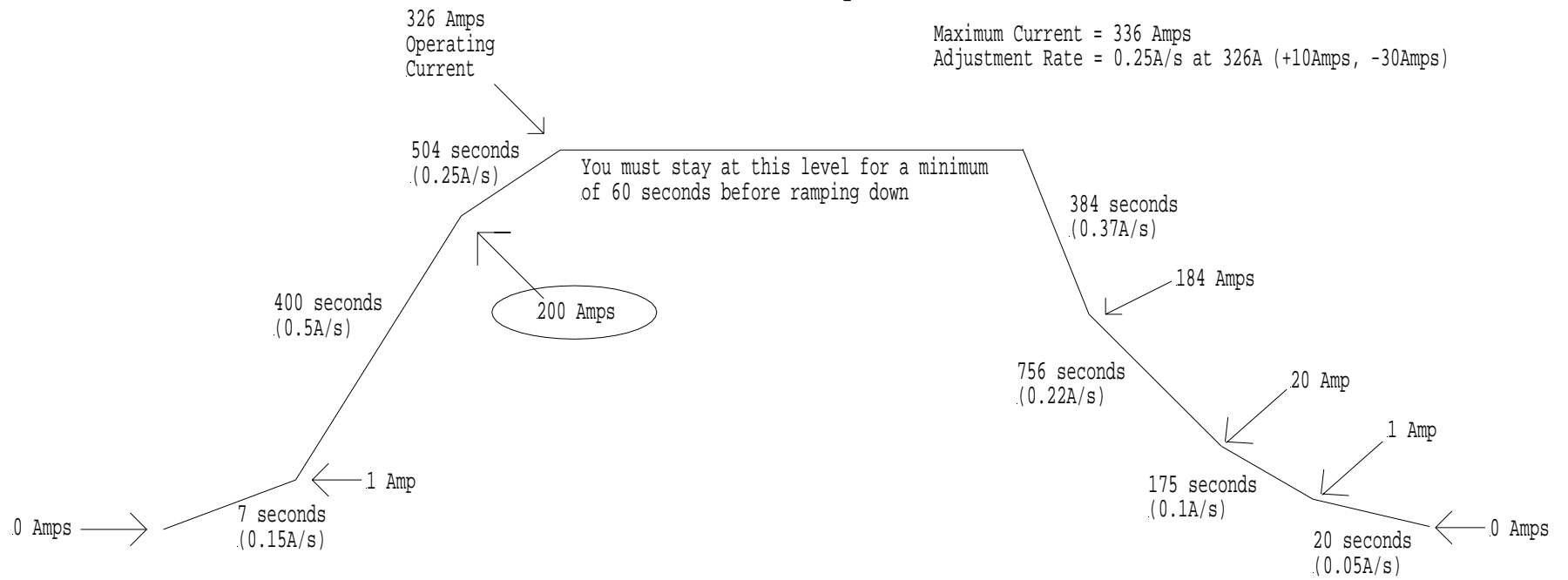
2006bi9-snk7-2.3_2x17x06
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This Ramp Applies to ONLY:

bi5-rot3-1.4-ps
yo5-rot3-1.4-ps
yi6-rot3-1.4-ps
bo6-rot3-1.4-ps

Maximum Current = 250 Amps
Adjustment Rate = 0.5A/s at 221A (+30Amps)
Adjustment Rate = 0.37A/s at 221A (-37Amps)

221 Amps
Operating
Current

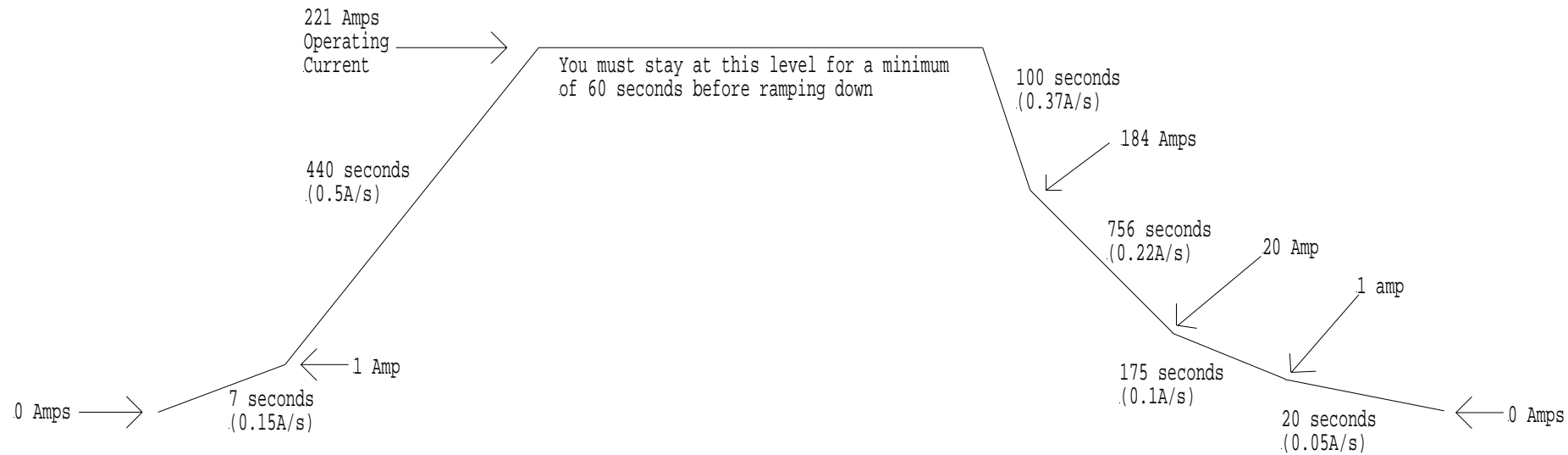You must stay at this level for a minimum
of 60 seconds before ramping down

100 seconds
(0.37A/s)

184 Amps

440 seconds
(0.5A/s)

756 seconds
(0.22A/s)

20 Amp

1 amp

1 Amp

175 seconds
(0.1A/s)

0 Amps

7 seconds
(0.15A/s)

20 seconds
(0.05A/s)

0 Amps

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This Ramp Applies to ONLY:

bi5-rot3-2.3-ps
yo5-rot3-2.3-ps
yi6-rot3-2.3-ps
bo6-rot3-2.3-ps

Maximum Current = 250 Amps
Adjustment Rate = 0.5A/s at 184A (+66Amps)
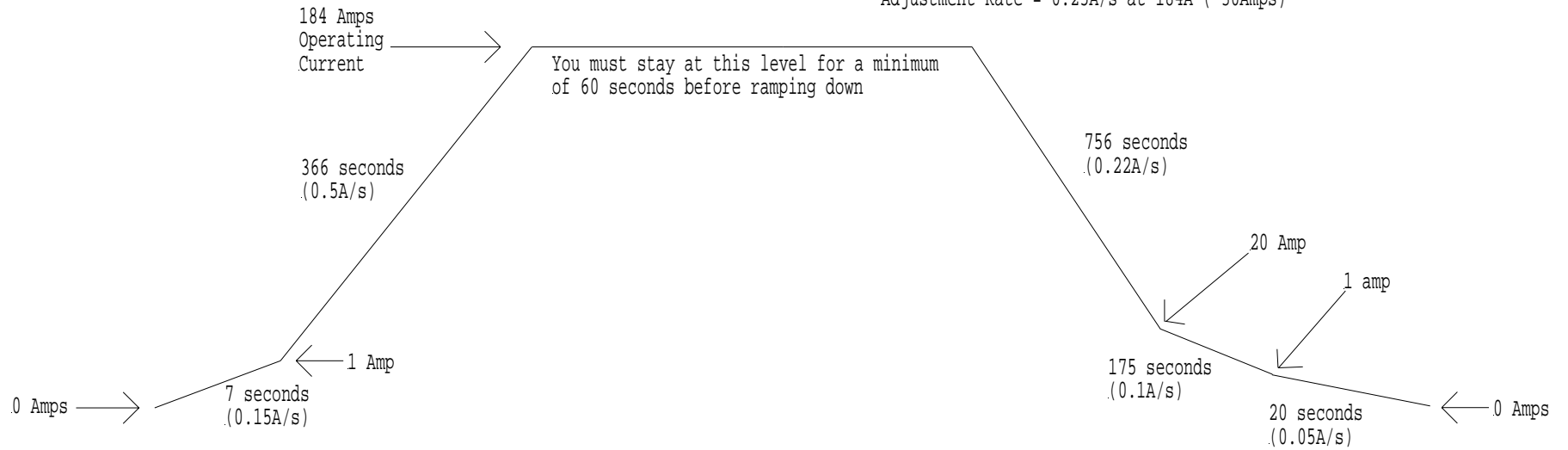Adjustment Rate = 0.25A/s at 184A (-30Amps)

184 Amps
Operating
Current

You must stay at this level for a minimum
of 60 seconds before ramping down

366 seconds
(0.5A/s)

756 seconds
(0.22A/s)

20 Amp

1 amp

1 Amp

175 seconds
(0.1A/s)

.0 Amps

7 seconds
(0.15A/s)

20 seconds
(0.05A/s)

.0 Amps

2006_STAR_rot3x2_3_2x17x06.skf
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This Ramp Applies to ONLY:

bo7-rot3-1.4-ps   Maximum Current = 250 Amps
yi7-rot3-1.4-ps   Adjustment Rate = 0.37A/s at 221A (-37Amps)
bi8-rot3-1.4-ps
yo8-rot3-1.4-ps

250 Amps
Operating
Current

You must stay at this level for a minimum
of 60 seconds before ramping down

200 seconds
(0.37A/s)

184 Amps

500 seconds
(0.5A/s)

756 seconds
(0.22A/s)

20 Amp

1 amp

1 Amp

0 Amps

7 seconds
(0.15A/s)

175 seconds
(0.1A/s)
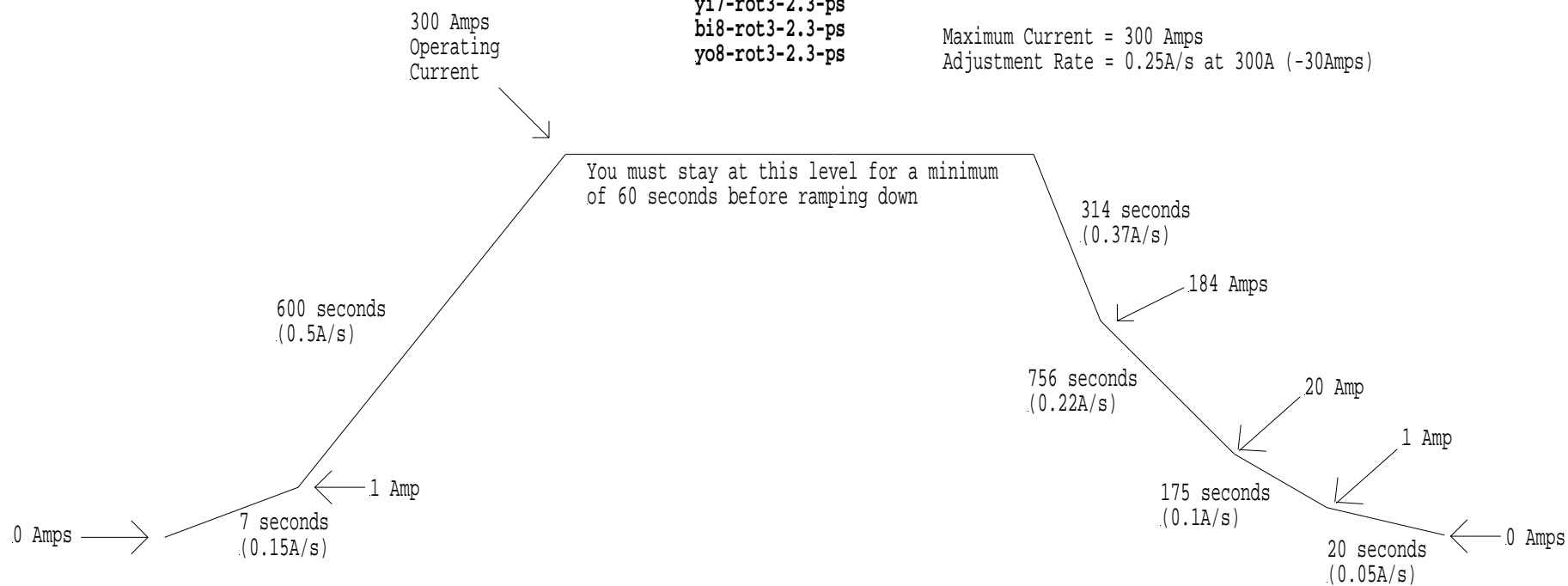
0 Amps

20 seconds
(0.05A/s)
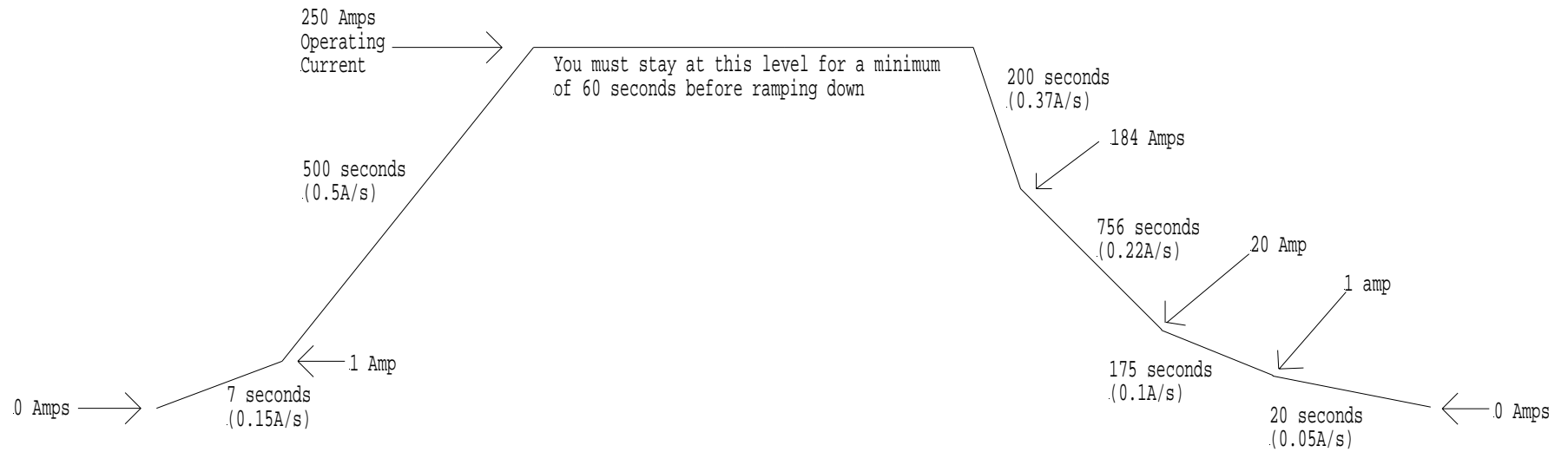
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This Ramp Applies to ONLY:

bo7-rot3-2.3-ps
yi7-rot3-2.3-ps
bi8-rot3-2.3-ps
yo8-rot3-2.3-ps

Maximum Current = 300 Amps
Adjustment Rate = 0.25A/s at 300A (-30Amps)

300 Amps
Operating
Current

You must stay at this level for a minimum
of 60 seconds before ramping down

314 seconds
(0.37A/s)

184 Amps

600 seconds
(0.5A/s)

756 seconds
(0.22A/s)

20 Amp

1 Amp

1 Amp

175 seconds
(0.1A/s)

0 Amps

7 seconds
(0.15A/s)

0 Amps

20 seconds
(0.05A/s)

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